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Serial No. 10/649,439

Uma Arun

ALGORITHM FOR INTELLIGENT SPEECH  
RECOGNITION

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Group Art Unit: 2609

Examiner: Natalie Lennox

Attorney Docket No. GP-303940

**REPLY BRIEF**

Board of Patent Appeals and Interference  
US Patent and Trademark Office  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

This Reply Brief is being filed to respond to certain of the comments and assertions contained in the Examiner's Answer mailed January 22, 2009.

The grounds of rejection section (9) of the Examiner's Answer is substantively the same as the rejection contained in the April 25, 2008 Office Action from which appeal is being made. Therefore, Appellant's Second Appeal Brief is fully applicable to those grounds of rejection. The Examiner's Answer additionally includes a response to argument section (10) to which this Reply Brief is more specifically addressed.

The Examiner's response section (10) begins by addressing a primary distinguishing limitation argued by Appellant; namely that the applied references do not

teach or otherwise render obvious the step of "adjusting the system after determining that the user has spoken prematurely to allow for earlier detection of user speech input." The Examiner argues that this step is obvious in view of the applied references "because Pickering provides a voice processing system that uses speech recognition and allows barge-in." Thus, as discussed in the Second Appeal Brief, the Examiner's rejection is predicated on the fact that Pickering detects speech earlier relative to its prompt than does French-St. George. From this the Examiner concludes that it would have been obvious to modify French-St. George's method, but only after the first prompt and detection of premature speech, so that the speech detection begins earlier when the second prompt is played. But that conclusion ignores the reality of what the references would suggest to one of ordinary skill in the art. If one were to employ the barge-in capability of Pickering in French-St. George's system, then there is no reason why they would implement it in a manner that fits within Applicant's claims. In particular, as discussed in the Second Appeal Brief at the bottom of Page 7, one of ordinary skill in the art might implement Pickering's barge-in capability so that, rather than detecting speech occurring too soon relative to a prompt and asking for it to be repeated (as in French-St. George), the speech would instead be accepted and processed even if it occurred during the prompt (as in Pickering). But that would not involve adjusting the speech recognition system after detecting the premature speech input, as claimed, because it would be implemented during the first and all other prompts for which a premature response might occur. Nor has there been any proper rationale provided as to why one of ordinary skill in the art would take Pickering's teaching of barge-in and its inherently earlier detection of speech, and utilize that only after detecting that the user spoke prematurely and not before, as would be required to meet the language of Applicant's independent claims 1, 8, and 15.

The Examiner's rejection and response also notes that "Pickering waits for the recognition result to be returned before interrupting the outgoing prompt in order to prevent triggering the termination of the prompt in circumstances where this was not actually the intention of the caller." True, but this is largely irrelevant to the claims at hand. That teaching from Pickering is simply stating that, rather than stopping the prompt midstream when speech is detected, the system first recognizes the speech to

determine if it was meant as an input response to the prompt and if so, only then terminates playing of the prompt.

The Examiner's response then includes several assertions that are specious at best. First, the Examiner states that Appellant's arguments fail to comply with 37 C.F.R. §§ 1.111(b) and (c) which require that a response include more than a general allegation of patentability and that an applicant must clearly point out the patentable novelty in the rejected claims. However, the application of those provisions to the Appeal Brief is questionable in view of the fact that 37 C.F.R. § 41.37 governs the required content of the Appeal Brief. More importantly, though, is the fact that the Examiner's response to Appellant's arguments at the beginning of section (10) itself belies the incorrectness of this assertion because the Examiner there identified the specific claim limitations that Appellant has presented as a basis for patentability. See also, the Second Appeal Brief at Pages 6-10 where Appellant specifically identifies many distinguishing limitations from the claims, including the very first paragraph of Appellant's argument section on Page 6 where Appellant identifies a specific limitation from its claims that is a basis for patentability.

Second, the Examiner asserts that Appellant has merely attacked the references individually, rather than as a combination. This, too, is wrong. Appellant discusses at Pages 6-7 of the Second Appeal Brief how there is at least one missing limitation from both references and then at the bottom of Page 7 onto Page 8 why a proper combination of the references would not result in that missing limitation. See also, the paragraph at the bottom of Page 9 concerning claims 21-25.

With regard to the comments on Page 14 of the Examiner's Answer concerning filtering taught by Pi as applied to claims 6, 7, 13, 14, 20, and 21-25, Appellant notes that these comments are no different than the points made in the rejection, and they in no way respond to Appellant's arguments concerning patentability on Page 9 of the Second Appeal Brief. For example, with respect to claims 21-25, Appellant has pointed out how the references together do not teach or suggest the combination of steps (c) through (f), none of which even relate to the filtering taught by Pi. Accordingly, the Examiner has not rebutted Appellant's arguments concerning these claims.

**Correction**

In the second sentence of the paragraph on Page 8 of the Second Appeal Brief discussing claim 4, the undersigned quoted distinguishing limitations from claim 4, but inadvertently terminated that quote early. The quoted language was meant to be “the speech recognition system providing a prompt indicating that the system is ready to receive speech input, receiving the user speech input before the system has started a first listening period that begins after a delay following the prompt, and thereafter providing a subsequent prompt and starting a subsequent *listening period at an earlier time relative to its prompt.*” (Emphasis added to identify the missing language.) The undersigned requests that this corrected language from the claim be considered in lieu of the truncated version contained in the Second Appeal Brief.

**Conclusion**

In view of the foregoing, Appellant respectfully requests that the Board overturn the Examiner's rejections of all claims and direct that they be allowed over the applied prior art.

The Commissioner is authorized to charge any fees, or refund any overpayments, associated with this Reply Brief to Deposit Account No. 07-0960.

Respectfully submitted,

REISING ETHINGTON P.C.

/James D. Stevens/

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James D. Stevens  
Registration No. 35,691  
P.O. Box 4390  
Troy, Michigan 48099  
(248) 689-3500

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